

PACAF
TACTICS & TECHNIQUES
bulletin



FAC PROCEDURES - TARGET MARKING

BULLETIN #59

24 MAR 66

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1. PACAF Tactics and Techniques Bulletins 17 and 47 described FAC tactics and techniques in a general sense. Bulletin 52 covered the problems of finding and recognizing enemy targets and combating enemy ground fire. In the past year, due to a general increase in enemy activity, this ground fire has become increasingly intense and accurate. Therefore, this bulletin will address techniques for strike control and target marking emphasizing minimal exposure to ground fire and more efficient use of aircraft capabilities.

2. The FAC should perform an area reconnaissance of the target area prior to arrival of the strike aircraft, if possible, to confirm the position of friendly forces and study the target terrain, weather, etc. All operations in the target area should be at an altitude above the effective range of small arms fire (approximately 1,500 feet AGL) unless there is an urgent operational requirement to fly lower. The FAC should have a plan or system but should not establish a set pattern. He should take advantage of sun, clouds, speed, binoculars, etc., to protect and separate himself from the enemy. Actual communications with the strike aircraft and basic FAC procedures are outlined in PACAFM 55-01. Concise, accurate briefings and limited radio usage will greatly enhance the effectiveness of the strike and safety of friendly forces involved.

3. In the target area, the strike pilots and FAC should keep each other in sight as much as possible, especially in areas of restricted terrain clearance or during periods of marginal visibility due to weather or darkness. The FAC should always insure the strike aircraft have him in sight and are ready to attack prior to his marking the target.

a. The primary purpose of the FAC's mark is to provide a clearly visible, common reference point for the FAC and strike pilots. The technique of accurately marking a target, while important, is not so vital that FAC position, vulnerability to ground fire or strike effectiveness should be compromised.

b. The actual mark may be a rocket with a white phosphorus or high explosive head, a colored smoke grenade, tracer rounds from a hand-held weapon, or any object dropped from the aircraft which contrasts with the surrounding terrain and can be seen by the strike pilots.

c. Target marking may also be accomplished by the ground forces using colored signal panels, signal mirrors, tracer cross-fire, smoke grenades, balloons, smoke generators or artillery/mortar smoke rounds. Natural and man-made terrain features and objects may also be used to describe the target location. Any time colored smoke is used for target marking, the color should not be revealed over the radio until the smoke has become visible to preclude the enemy from using diversionary smoke of the same color.

4. The techniques of target marking will be influenced by the type of mark, target terrain, weather, type and perishability of target, ground fire, and FAC experience and ability.

a. The FAC must know the type of target he has and mark accordingly. A mark directly on an enemy troop concentration will cause them to disperse and will degrade the effectiveness of the strike, whereas an offset mark will give a common reference point and not alert the enemy. Bridges, sampans, trucks, and other more or less stationary targets, in or near trees or camouflaged, should be marked directly since they will most likely be difficult for the strike pilot to see.

b. The FAC should always give the strike pilots any restrictions to attack and breakaway headings such as friendly troop positions, terrain, weather, borders, etc., and offer recommended attack and breakaway headings based on these restrictions. Generally the best direction of attack is parallel to friendly lines because of the possibility of hung ordnance or runaway guns. Consideration should also be given to known enemy ground fire, obstacles and pilots' visibility of the target. The flight leader should make the final decision on the attack heading, but the FAC should not hesitate to halt the strike should the direction of attack jeopardize the safety of friendly troops or aircraft.

5. The FAC normally has several methods of marking the target and should use the one that best fits the situation.

a. A good technique for marking a target with rockets is to position the target off the wingtip about hill line with the step on the strut, confirm that the strike pilots have in sight, roll in and turn toward the target using coordinated control movements and arming the rocket as the nose passes down; through the horizon. Then, line up quickly on the target, insure the aircraft is still in coordinated flight, and fire the rocket. Recover above 1,500 feet AGL. Make: a coordinated, maximum effort pull-up away from the target, maintain good airspeed and disarm the rockets as the nose passes up through the horizon. Observe the point of impact and quickly give corrections from the mark to the target. Take up a position to observe the ordnance delivery and keep clear of the strike aircraft. The ®-1 is most vulnerable to ground fire when at low speeds near a stall, following a set pattern or pointed directly at the target in a dive. Avoid these situations as much as possible. Accurate rocket travel is due largely to coordinated aircraft control at launch and good sighting techniques. The rockets should be sighted like a shotgun using the sighting rod, if installed, for lateral sighting and a spot on the windscreen about eye and rocket tube level for vertical sighting. Learn to fire quickly once the aircraft is pointed at the target to limit exposure to ground fire.

b. A diving delivery of a hand-held object, such as a smoke grenade or cloth marker, is made in much the same manner as rocket delivery. Align the target under the wheel and roll in toward the target, dive as steeply as possible, align the nose of the aircraft with the target and release quickly. Recover as in a rocket: delivery.

c. Level delivery of a hand-held object is best done by an observer from the rear seat with the front seat pilot calling the drop as the target disappears under the wheel while flying directly over the target. Objects can be dropped from the front seat using the same sighting techniques.

Any objects dropped should be kept "safe" until outside the aircraft, i.e. pull pins on grenades outside the cockpit and throw objects away from the aircraft. Do not drop fused incendiary or explosive objects from the aircraft unless fusing will allow safe separation.

d. If it becomes necessary to mark a target with tracers, again it is best done by an observer from the rear seat. Most small arms will have a slight drop from 1,500 feet so aim above and behind the target, fire a short burst and correct the aiming point. Firing hand-held weapons is recommended only as a last resort.

6. As in all phases of flight, it is extremely important to use smooth throttle technique during target marking. Jamming the throttle forward during marking, in orbit during the strike, or during the bomb damage assessment (BDA), could result in engine stoppage in a very dangerous area.

7. The FAC is responsible for avoiding mid-air collisions in the target area; therefore, he should insure that he has the strike aircraft in sight or that they see him at all times, especially during ordnance delivery passes. Keep the strike aircraft advised of other known aircraft and artillery fire in the area.

8. The same aircraft control techniques apply during the BDA and it is advisable to keep a running BDA as the strike progresses and complete the BDA before the strike aircraft depart the area. Hits from small arms have been reported above 1,500 feet AGL so don't put the aircraft in a vulnerable position at any altitude. If mission accomplishment requires operations at a lower altitude, remember that the greater your airspeed, the quicker you will fly out of the range of ground fire. Sinking and uncoordinated flight will adversely affect the gunners' aim but will also slow down your exit from the area.

9. For more information on Forward Air Controlling see PACAF Tactics and Techniques Bulletins #17, 20 August 1965; #47, 29 August 1966; and #52, 19 December 1966.

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